REMARKS/ARGUMENTS

Favorable consideration of this application is respectfully requested. Applicant has amended claims 1-3, 7, 8, and 10-18 and has canceled claims 4, 6, and 9. Favorable reconsideration of this application is, consequently, earnestly solicited in view of the following remarks.

Claim Objections:

Claims 6-8 were objected to under 37 CFR 1.75(c) as being improper form because a multiple dependent claims (claim 6) claims a display of claims 3, 4 and 5 and claim 6 was further objected to as unclear because the limitation "an unequal voltage" is unclear. Claim 6 has been canceled.

Claims 7 and 8 were objected to because they depend from improper claim 6. Claim 6 has been canceled and claims 7 and 8 have been amended to depend from amended claim 3.

Claim Rejections 35 U.S.C. §112:

Claim 17 was rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 has been amended to overcome the 35 U.S.C. §112 rejection to include the limitation of the dielectric layer formed on the first common electrode layer adjacent to the liquid crystal layer and clarifying the that application step is the application of a voltage to the pixel electrode to generate a strong electric field

between the pixel electrode and the discontinuous second common electrode as described in the subject application on page 11, lines 5-13 and shown in Figure 8. Thus removal of the rejection is requested.

Claim Rejections 35 U.S.C. §102:

Claims 1-5 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent 6,469,765 B1 (Matsuyama et al.) filed on June 13, 2000.

Matsuyama (col. 17, lines 17-21 and Figure 4) disclosed a first common electrode (500) that is continuous and a second common electrode (400) that is also continuous, unlike the subject application wherein the second common electrode (23, 53, , 62, 71 and 92) is discontinuous (Figures 2-7 and 9) and the pixel electrode is continuous.

Claim 1 has been amended to add the limitation that the second common electrode is discontinuous. For the reason provided, Applicant believes that amended claim 1 is allowable over Matsuyama, thus removal of the rejection is requested.

In regard to claim 2, Applicant agrees with Examiner that the pixel electrode and the second common electrode in Matsuyama and the subject application are separated by a insulation layer. However, since claim 2 depends from amended claim 1, for the reason provided in regard to claim 1, Applicant believes that claim 2 is allowable and requests removal of the rejection.

In regard to claims 3-5, in Matsuyama the voltage difference is produced between the pixel electrode (300) and common electrode (400) and between the first common electrode (400) and the second common electrode (500) and the example given disclosed applying 0V to both the first and second common electrodes (400 and 500) and applying

5V to the pixel electrode (300). In the subject application, 0V is applied to one of the first and the second common electrode and 5V is applied to the other common electrode.

Applicant has amended claim 3 to add the limitation of claim 4 and has cancelled claim 4. Applicant has further amended to 3 to recite the discontinuous second common electrode of claim 1 and to clarify that, unlike Matsuyama, the first voltage applied to the first common electrode and the second voltage applied to the discontinuous second electrode are not equal. For the reasons provided in regard to claim 1, Applicant believes that amended claim 3 and original claim 5 are allowable and requests removal of the rejection.

Claims 7 and 8 have been amended to depend from amended claim 3 and have been further amended to clarify that second common electrode layer is discontinuous and the one of the first and the second voltages is higher than the other one of the first and second voltages. Applicant believes that amended claims 7 and 8 are in proper form and for the reasons provided in regard to claim 1, that claims 7 and 8 are allowable over Matsuyama. Removal of the rejection of claims 7 and 8 is respectfully requested.

In regard to claims 11 and 12, claims 11 and 12 has been amended to add the limitation of the voltage applied to the pixel electrode layer being equal to the first voltage and the second voltage, respectively, to generate the vertical and non-vertical electric fields, respectively. For the reasons provided in regard to amended claims 1, 7 and 8, Applicant believes that amended claims 11 and 12 overcome the 35 U.S.C. 102(e) rejection and respectively request removal of the rejection.

Claim Rejections 35 U.S.C. §103:

Claims 9, 10 and 13-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,469,765 B1 (Matsuyama) in view of United States Patent 6,819,384 B2 (Nakanishi et al.).

In regard to claim 9, claim 9 has been canceled.

In regard to claim 10, claim 10 has been amended to clarify that the inclusion of the dielectric layer adjacent to the first common electrode improves the light efficiency of the thin film transistor liquid crystal display. Amended claim 10 depends from claim 2 which depends from amended independent claim 1. For the reasons provided in regard to claim 1, Applicant believes that amended claim 10 is allowable and respectfully requests removal of the rejection.

In regard to claims 13-15, Applicant has amended independent claim 1 to clarify that the second common electrode layer is discontinuous. Claims 14 and 15 have been amended to further clarify that the pixel electrode layer is continuous. Nakanishi discloses a liquid crystal display having a resistive insulating layer (26A) between the bottom common electrode (23A) and the pixel electrode (25A), however, the pixel electrode is not continuous. For this reason, Applicant believes that claims 13-15, as amended, overcome the rejection and requests removal of the rejection.

In regard to claim 16, Applicant has amended claims 16 to clarify that the pixel electrode and the second common electrode are discontinuous and that the discontinuous pixel and second common electrodes are alternating electrodes as shown in Fig. 7 and described on page 10, lines 14-24. Claim 16 has been further amended to clarify that the discontinuous pixel and second common electrode are adjacent to the liquid crystal layer and that the voltage applied to the discontinuous pixel and second common electrodes are

unequal to form a strong electric field between the pixel electrode and the second common electrode.

Nakanishi discloses a liquid crystal display having alternating discontinuous pixel and bottom common electrodes, however, the insulating layer (26A) also covers the pixel and common electrodes forming a liquid crystal layer that is thicker between the top substrate and the pixel electrode. Unlike Nakanishi wherein a voltage is applied between the pixel electrodes and common electrodes, an unequal voltage is applied to the discontinuous pixel and common electrodes to generate a horizontal electric field between the discontinuous pixel and second common electrodes. For these reasons, Applicant believes that amended claim 16 overcomes the rejection and requests removal of the rejection.

In regard to claim 17, Applicant has amended claim 17 to clarify that the dielectric layer is formed on the first common electrode adjacent to the liquid crystal layer (as shown in Fig. 8) and that when a voltage is applied to the pixel electrode a strong electric field is generated between the pixel electrode and the discontinuous second common electrode. Applicant believes that amended claim 17 overcomes the rejection and requests removal of the rejection.

In regard to claim 18, has been amended to clarify that an unequal voltage is applied to the first common electrode and the discontinuous second common electrode. The amended claim further clarifies that a high data input generates a vertical electric field (Fig. 4) and a non-vertical electric field when the input data is low (Fig. 2). Applicant believes that claim 18, as amended, overcomes the rejection and requests removal of the rejection.

In view of the foregoing considerations, it is respectfully urged that claims 1-3, 5, 7, 8, and 10-18 be allowed. Such action is respectfully requested. If the Examiner believes that an interview would be helpful, the Examiner is requested to contact the attorney at the below listed number.

Respectfully Submitted;

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